

1 John S. Purcell (SBN 158969)  
2 **ARENT FOX LLP**  
3 555 West Fifth Street, 48<sup>th</sup> Floor  
4 Los Angeles, California 90013-1065  
5 Telephone: 213.629.7400  
6 Facsimile: 213.629.7401  
7 Email: john.purcell@arentfox.com

8 Attorneys for Defendant  
9 LG ELECTRONICS USA, INC.

10  
11 UNITED STATES DISTRICT COURT  
12 CENTRAL DISTRICT OF CALIFORNIA

13 SANSI NORTH AMERICA, LLC, a  
14 New York limited liability company,

15 Plaintiff,

16 v.

17 LG ELECTRONICS USA, INC., a  
18 Delaware corporation, and DOES 1-10,

19 Defendant.

Case No. 2:18-cv-03541 PSG (SKx)

**DECLARATION OF GARRY  
WICKA IN SUPPORT OF  
DEFENDANT LG ELECTRONICS  
USA, INC.'S MOTION FOR  
SUMMARY JUDGMENT**

*[Filed Concurrently with Notice of Motion and  
Motion for Summary Judgment; Memorandum  
of Points and Authorities in Support Thereof;  
Separate Statement of Undisputed Facts;  
Declarations of John S. Purcell and Laura  
Cohen; and [Proposed] Order submitted]*

Date: November 18, 2019  
Time: 1:30 p.m.  
Judge: Hon. Philip S. Gutierrez  
Courtroom: 6A

SAC filed: Sept. 24, 2018  
Trial Date: Jan. 14, 2020  
Discovery Cut-Off: Aug. 28, 2019  
Final PTC: Dec. 16, 2019

1 I, Garry Wicka, declare as follows:

2 1. I am over the age of 18 and a Vice President of Marketing for LG  
3 Electronics USA, Inc., a defendant in this action. I make this declaration of my  
4 personal and firsthand knowledge and, if called and sworn as a witness, I could and  
5 would testify competently hereto.

6 2. LG is an international electronics products company headquartered in  
7 Seoul, South Korea. This case relates to LG's products in the digital signage  
8 market in the United States, specifically its direct view LED (Light Emitting Diode)  
9 and OLED (Organic Light Emitting Diode) products. Direct View LED is a flat  
10 panel display involving the use of LEDs. OLED displays are a specific, and  
11 advanced, version of LEDs that allow for tremendous flexibility and superior  
12 viewing angles to standard LED technology. LG is currently the only company that  
13 sells OLED products. In my position, I am familiar with LG's marketing and sales  
14 as they relate to OLED and direct view LED and I oversee dozens of employees  
15 who work in these areas.

16 3. In early 2017, LG hired Robin Duggan of 2.gc, inc. to create an  
17 eBook about developments in digital signage ("eBook 1"), with a focus on LG and  
18 OLED in particular. eBook 1 included pictures of several non-LG products, one of  
19 which was a screenshot of a video of Sansi's Salesforce LED display. These  
20 pictures were included as examples of interesting ways businesses used digital  
21 signage. The caption for the Salesforce picture in eBook 1 did not mention OLED  
22 or LG. A true and correct copy of eBook 1 is attached hereto as Exhibit A.

23 4. About a year later, LG entered into an agreement with NewBay Media  
24 for several marketing projects, including one whereby NewBay would prepare the  
25 Article for placement in NewBay's Digital Signage Magazine, an industry  
26 publication with about 11,000 subscribers. The Article was intended to focus on  
27 LG OLED display capabilities. Ms. Duggan was not involved in this effort.  
28 However, when NewBay prepared the Article, it based some of its work on Ms.

1 Duggan's pre-existing eBook about digital signage and included an image of the  
 2 Salesforce Display, a project Sansi worked on that is located in the lobby of the  
 3 Salesforce headquarters in San Francisco, California.

4 5. Although I am listed as the author, the Article was actually written by  
 5 a man named David Keene and placed in the magazine under my name. I was not  
 6 aware that this was going to occur prior to publication. I have spoken to Mr. Keene  
 7 about his process for writing the article. I am aware that he and the others at  
 8 NewBay believed that all the pictures in the eBook were OLED displays, and  
 9 changed the caption on the picture depicting the Salesforce Display so that it  
 10 referred to the wall as a "custom built OLED screen." This was a mistake, as the  
 11 Salesforce Display was not OLED, but rather a conventional LED screen.

12 6. When the article was then reviewed by LG's in house advertising  
 13 agency, HSAd America, it updated the "OLED" references to "LG OLED" as part  
 14 of a global change. None of the people actually involved in creating the Article  
 15 were aware that the Salesforce Display was neither OLED nor created by LG, and  
 16 none of them spotted this mistake. NewBay then received the copy back from  
 17 HSAd America, and published it without further comment from LG. A true and  
 18 correct copy of the Article that appeared in Digital Signage Magazine is attached  
 19 hereto as Exhibit B. A digital version of the article, in downloadable eBook form  
 20 ("eBook 2"), was available on NewBay's website. A true and correct copy of  
 21 eBook 2 is attached hereto as Exhibit C.

22 7. A few months later, in March 2018, Sansi's outside legal counsel  
 23 informed LG about the mistake. LG investigated and quickly arranged for NewBay  
 24 Media to take immediate action to retract the photo and caption. LG also made sure  
 25 that eBook 2 was immediately taken down and not available online. LG has also  
 26 subsequently take even eBook 1 down. We made sure never to use eBook 2 for any  
 27 marketing purposes after learning about the mistaken caption.

28 8. After the mistaken caption was brought to LG's attention, LG obtained

1 information from NewBay about how many times it was downloaded and by  
 2 whom. The list of eBook 2 downloads contained only 102 names. None of these  
 3 people worked for companies who placed an order for LG's direct view LED  
 4 displays (which is LG's product most similar to the Salesforce Display). A true and  
 5 correct copy of the list of companies NewBay provided is attached as Exhibit D.  
 6 Also, LG also did not place the names on Exhibit D into LG's sales lead data base  
 7 after receiving them from NewBay.

8 9. Only one of the companies on Exhibit D made a purchase of an LG  
 9 OLED project. This sale was made to a company that had done business with LG  
 10 for years prior to the publication of the Article or the eBook 2 and who had bought  
 11 OLED products from LG both before and after the Article and eBook 2 were  
 12 published.

13 10. LG also offered to place an ad in Digital Signage Magazine to  
 14 acknowledge the mistake. Sansi rebuffed this offer and instead filed its complaint  
 15 in this action on April 26, 2018.

16 11. LG has never sold any Sansi product, including the Salesforce Display,  
 17 or any product that was a copy of the Salesforce Display. It also never removed  
 18 Sansi's name from any products.

19 12. The products LG provides that are most similar to Sansi's Salesforce  
 20 Display are LG's Direct View LED. In the time since the Article appeared, the  
 21 only Direct View LED projects LG had commenced or sold were: (i) Columbus  
 22 Convention Center for Coffman Media in Columbus, Ohio; (ii) Apple, Inc. project  
 23 in Culver City, California; (iii) Dallas Fort Worth Airport project in Dallas, Texas;  
 24 and (iv) Westin Kierland project in Scottsdale, Arizona.

25 13. I am intimately familiar with these projects and know that none of  
 26 these projects came to LG as the result of the Articles or the eBooks or because of  
 27 the Salesforce Display. Neither Sansi nor Salesforce came up during any  
 28 negotiations for these project and LG did not use the Salesforce Display in any of

1 the marketing materials it used in connection with these projects. Indeed, all of  
2 these projects were awarded to LG before the Article even appeared.


3 14. The Article's caption was about OLED. I have reviewed LG's sales  
4 records and have had lengthy discussion with the sales and marketing professionals  
5 who report to me. LG has not made any OLED sales based on the Article or the  
6 eBooks. This makes sense, given that the Salesforce Display was not an OLED  
7 project. We also have no correspondence with OLED customers mentioning the  
8 Salesforce Display or Sansi.

9 15. At no time did LG ever have intend to claim credit for any of Sansi's  
10 work. I was not even aware that Sansi existed at the time the Article and the  
11 eBooks were created. The captions in eBook 2 and the Article were mistakes that  
12 we corrected as soon as they were brought to LG's attention.

13 16. I am also quite familiar with LG's marketing and sales promotion  
14 materials. LG has never done any advertising that featured "head to head"  
15 comparisons with Sansi's products. LG has also not disparaged the quality of  
16 Sansi's products in any of LG's marketing material. LG bears no malice towards  
17 Sansi and has not undertaken any marketing efforts with the intention to treat Sansi  
18 unfairly or to harm Sansi. LG has also reviewed its correspondence and has found  
19 no emails or letters to or from LG's sales clients that mention Sansi or the  
20 Salesforce Display.

21 I declare under penalty of perjury under the laws of the United States of  
22 America that the foregoing is true and correct.

23 Executed on Sept 10, 2019, at Lincolnshire, Illinois.

24  
25  
26   
27 Garry Wicka  
28

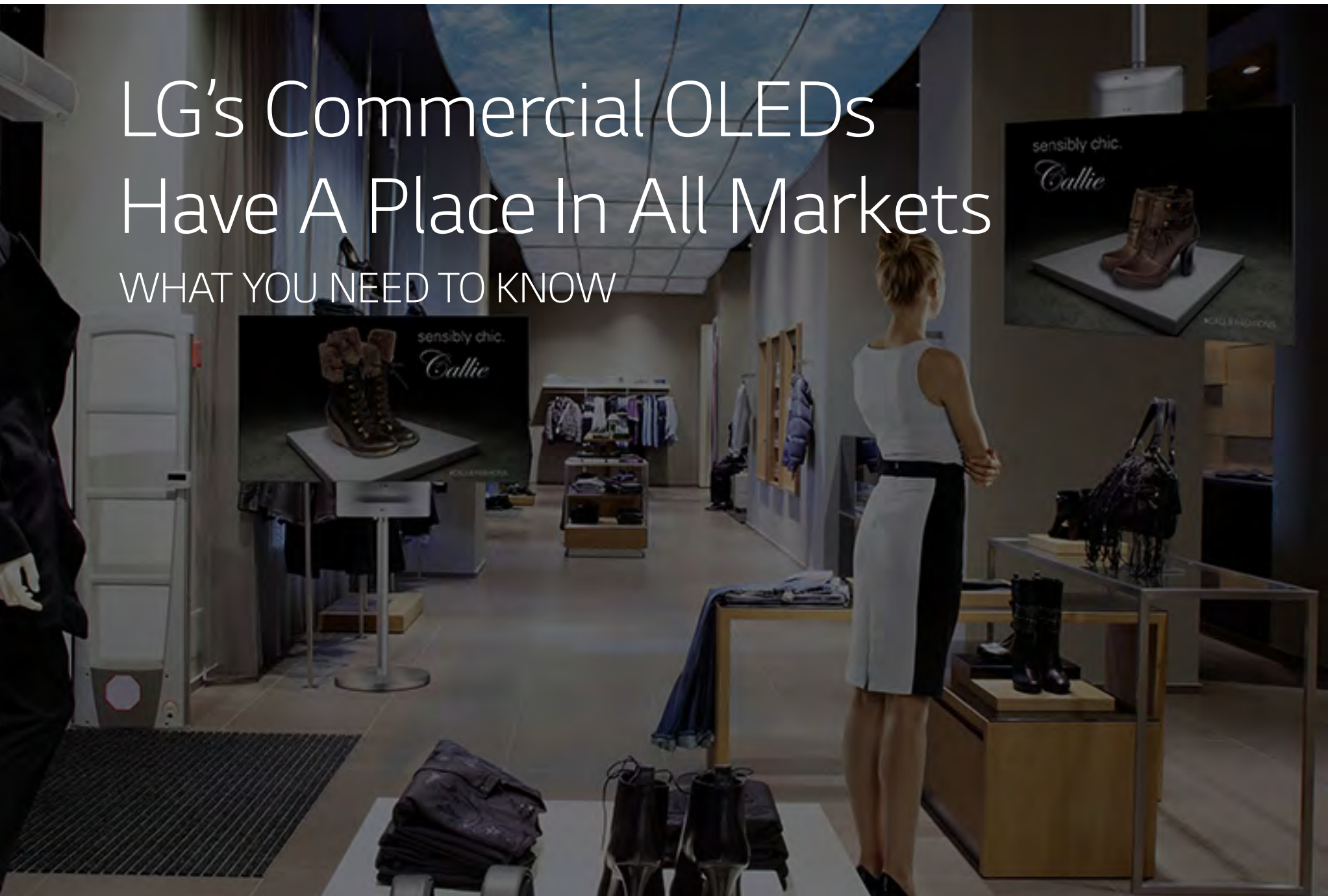
# EXHIBIT A





# LG's Commercial OLEDs Have A Place In All Markets

WHAT YOU NEED TO KNOW





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## “LG OLEDs are a game changer”

Gary Kayye  
RAVE Founder  
Quoted from DSE 2017



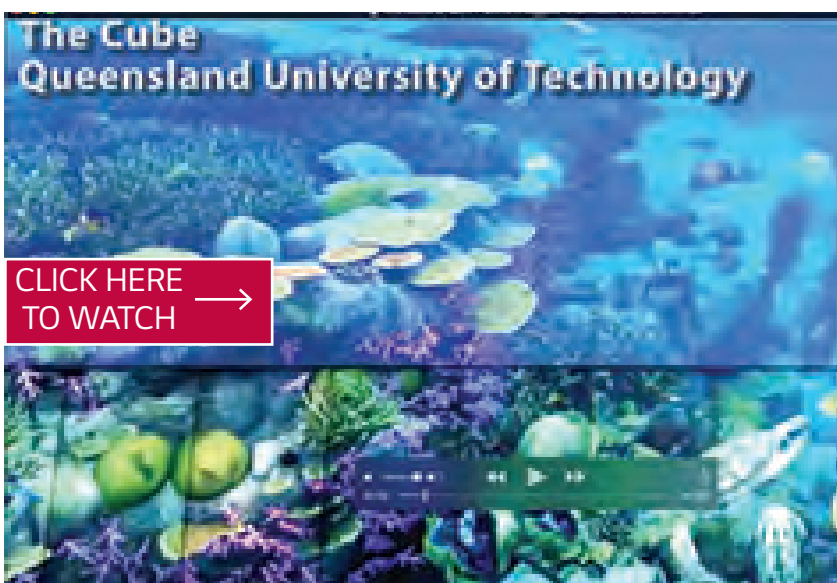
Digital signage has been around for years but whether digital content was displayed from a projector, a flat panel, or video wall, creative teams didn't really think beyond the content they were developing. Now with the advancements in display technologies, brands are not just looking at their content but to architects and designers to create new spaces to incorporate digital signage that had not previously been part of their digital strategy.

LG OLED displays have broken away from the limits of form and have freely overcome the hindrances of digital signage of the past. LG's OLED displays are thinner, lighter, and no longer just stick out from a wall. They can seamlessly blend into an environment or become the environment. They form into concave and convex shapes that hang from the ceiling, wall, or floor. These totally immersive displays engage customers in a way never seen before.

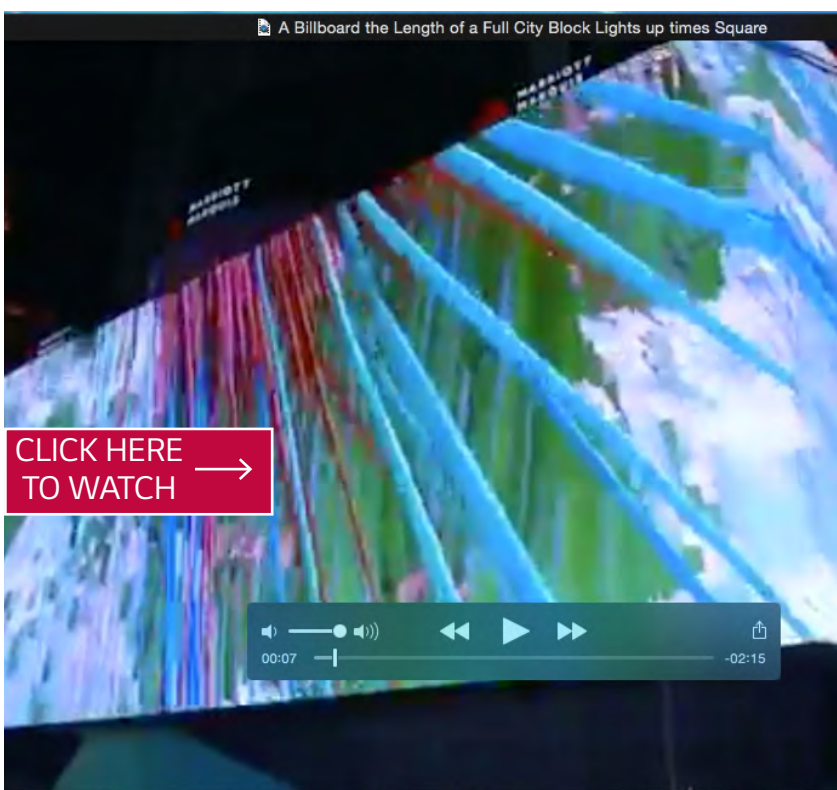
# DIGITAL SIGNAGE ON THE FAST TRACK

**2013** The University of Technology in Brisbane opened the world's largest multi-touch installation. This installation called "The Cube", is an evolutionary digital interactive learning exhibition space consisting of 48 multi-touch displays, 14 HD projectors, and 55 speakers in six separate displays zones totaling 145 million megapixels.

This installation was used as a teaching tool for its students and a science and engineering outreach to the community.<sup>1</sup>



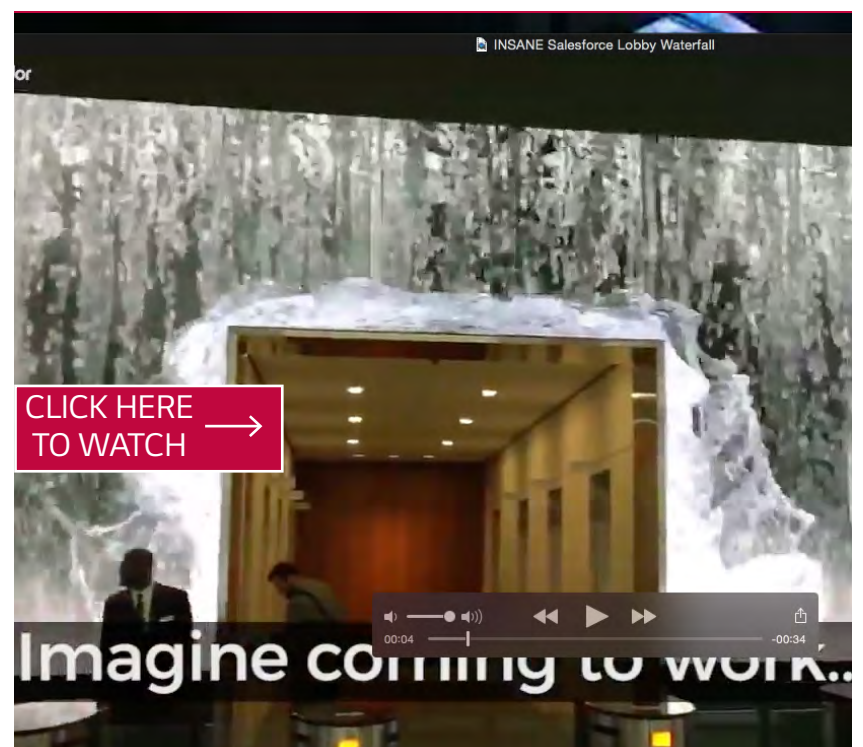
**2014** Times Square installs what was touted as the world's largest high-definition digital signage, which is as long as a football field and eight stories tall. The 24 million LED pixel screens was part of a project to expand and redevelop the Marriott Marquis retail space.<sup>1</sup>



**2015** LG creates the world's largest OLED display at South Korea's Incheon International Airport. This OLED display is made up of 140 55-inch curved OLED panels and measures 42.6' high by 26.24' wide, setting the new world record for the largest OLED display, according to the World Record Academy.<sup>1</sup>



**2016** The Salesforce San Francisco office has a custom-built screen in their lobby that is 12K resolution, with over 7 million pixels, and measures close to 107' long. The content is amazing to see from a waterfall to California's Redwood National Park and is synced with the local weather to play content that matches the weather.<sup>1</sup>









# WHAT NEXT? LG OLED DISPLAYS.

LG is one of the major manufacturers of OLED technology, and its proprietary technology has surpassed all expectations creating a new high-end digital signage category. Setting these displays apart from all others are characteristics called the ABCDs of OLED; wide viewing Angles, blackest Blacks, vibrant Colors and customizable Designs. As form follows function or in this case, function is following these OLEDs forms, of which the line-up consists of:

- a LG DUAL-VIEW FLAT OLED DISPLAYS.** Razor thin LG OLEDs are dual-sided allowing them to play the same or different content on the front and the back. They can be hung from the ceiling, mounted on a wall or stand on the floor. They can be oriented in portrait or landscape and equipped with SuperSign W-Lite | C.
- b LG OPEN-FRAME CURVED OLED DISPLAYS.** These LG OLEDs are beautifully curved using slim tiles that form customizable displays linking 2, 3 or 4 tiles together. The pencil-thin display can be arched and curved, concave or convex, by using the OLED Module | Signage Box and T-Con Box | Cables.
- c LG DUAL-VIEW CURVED TILING OLED DISPLAYS.** The modular design of this display allows 1x2, 1x3 and 1x4 layout capabilities. Dual-sided and ultra thin create a perfect space divider playing the same or different content front to back.

## LG's OLED ABCDs

Performance that no other displays can match.

	<b>Perfect Black.</b> Each pixel can switch off completely to reproduce absolute black with no light bleed.
	<b>Stunning Color and Contrast.</b> Self-lighting pixels bring colors to life with superb accuracy and infinite contrast.
	<b>Wide Viewing Angle.</b> Enjoy awe-inspiring picture quality across the entire screen, even from wide viewing angles.
	<b>Razor-Thin Design.</b> With just two layers, the LG OLED signage displays are unbelievably lightweight and razor thin.

- d LG WALLPAPER OLED DISPLAYS.** This spectacular razor-thin display is the sure game changer with nothing else like it in the world. LG OLED Wallpaper mounts so seamlessly that it creates a new kind of harmony between moving images and interior décor. These models can be mounted to the wall, ceiling or floor using a magnetic mat that is so lightweight it can be installed by a single person.
- e LG IN-GLASS WALLPAPER OLED DISPLAYS.** LG OLED In-Glass displays suspend two Wallpaper displays back-to-back surrounded by a glass frame. When installed from the ceiling using a single connection cable, they seem to defy gravity. Floorstanding, they look like they are floating in air. And adding to their versatility they are dual-sided and can play content front to back.



# LG OLEDs HAVE A PLACE IN ALL MARKETS

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RETAIL



TRANSPORTATION



PUBLIC VENUES



HOSPITALITY



CORPORATE

LG OLEDs allow brands to express themselves in a new and moving way. Retail, Transportation, Public Spaces, Hospitality and Corporate verticals can put their vision on full display, elevating the brand and connecting more deeply with their customers, visitors, and employees. One thing is sure, LG's OLEDs will be noticed because of their ABCD's. Here we have outlined some great usage ideas for different markets.





## RETAIL

LG's OLEDs can be used throughout the store for branding, merchandising, promoting specials, and educating or entertaining customers. LG OLED displays operate as beautifully as they look, with easy integration and remote management that makes it simple to keep things fresh from wherever your systems are managed.

### **a** OPEN-FRAME CURVED OLED DISPLAYS

- Curve them around columns showing a fashion show to lead customers around a department
- Create a sensational moving promotion down the center of main aisles covering the entire ceiling
- Design a unique shaped backdrop behind the registers to show content that is relaxing and engaging while shoppers wait to check out
- Use in window displays to create an eye-catching movement of the season's theme

### **b** LG DUAL-VIEW FLAT OLED DISPLAYS

- Grab attention by mounting from the ceiling or place over a center aisle in new arrivals
- Hang them from the sides of columns for directional signage or play content suitable for the department's clientele
- Mount them on the wall and demo different items on either side for total interaction

### **c** DUAL-VIEW CURVED TILING OLED DISPLAYS

- Use as a divider for different departments, they take up little floor space, can play different content on either side and with their curved form create an easy traffic pathway
- Perfect for pop-ups because they form 2-sided divider walls that are easy to move to new locations

### **d** WALLPAPER OLED DISPLAYS

- Use on end caps for focused messaging on specialty products
- Place on the floor below mannequins to create a moving sidewalk
- Play informational videos on products or services creating an engaging self-service area
- Position throughout the mall broadcasting different retailers and restaurants

### **e** IN-GLASS WALLPAPER OLED DISPLAYS

- Hang from the ceiling in the front of the store to brand and tell customers about special offers
- Ceiling mount them and use as aisle signage to inform customers what they can find in that aisle but also promote specials
- Stand at entrances to welcome and thank customers coming and going
- Create a unique store front by hanging them at different levels
- Advertise the brand on one side and promotions on the other side



**a** 55EF5C 55" class  
Open-Frame Curved OLED Displays

**b** 55EH5C 55" class  
Dual-View Flat OLED Displays  
Floorstanding, Ceiling Mount, Wall Mount

**c** 65EE5PC 65" class  
Dual-View Curved Tiling OLED Displays

**d** 55EJ5C 55" class  
Wallpaper OLED Display

**e** 55EG5CD 55" class  
In-Glass Wallpaper OLED Display





## TRANSPORTATION

LG's OLED displays truly make an impression on travelers whether it is their first visit to a destination or is part of their daily traveling routine. They entertain, inform, and drive traffic to terminal vendors while efficiently moving travelers throughout the terminal. LG OLED displays operate as beautifully as they look, with easy integration and remote management that makes it simple to keep things fresh from wherever your systems are managed..

### OPEN-FRAME CURVED OLED DISPLAYS

- Use as a living wall in large-scale concourses that are easy to update with the seasons
- Turn them down the center aisle displaying the culture of different destinations
- Create a focal point by tiling them in unique shapes on walls near escalators

### LG DUAL-VIEW FLAT OLED DISPLAYS

- Using the floor standing model at terminal entrances is a perfect way to meet and greet visitors
- Grab attention by mounting from the ceiling or place over a center aisle with real-time departure and arrival times
- Hang from the sides of columns inside gate waiting areas to inform and entertain passengers while they are waiting to board
- Mount on the wall and display area hotels on one side and ground transportation on the other for total interaction
- Hang above security check points to supply guidance and transportation regulations
- Hang from the ceiling above escalators, stairways, and moving sidewalks to display wayfinding or directional information

### DUAL-VIEW CURVED TILING OLED DISPLAYS

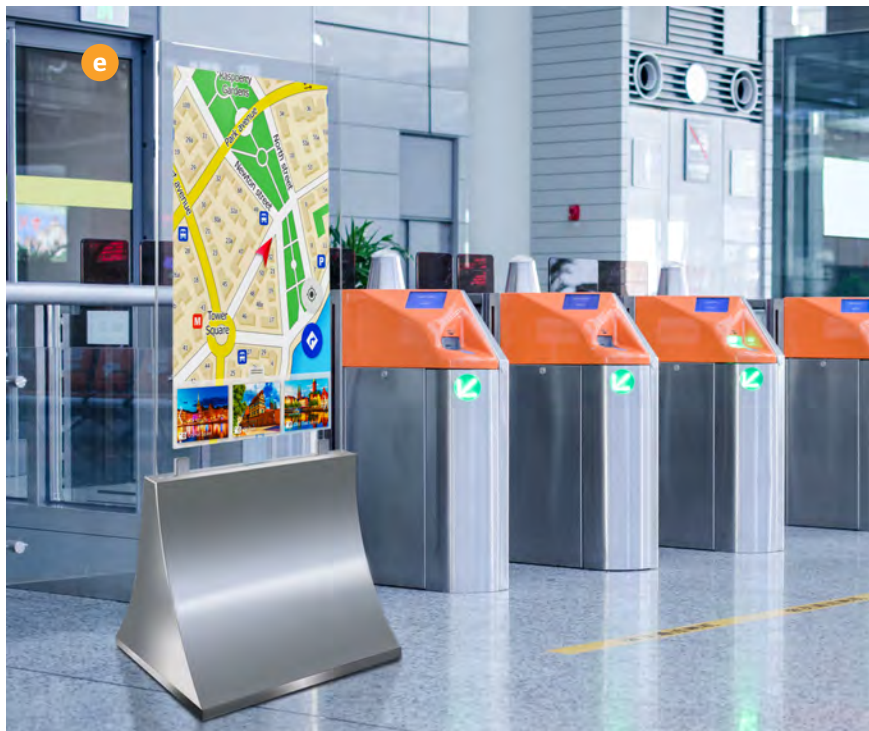
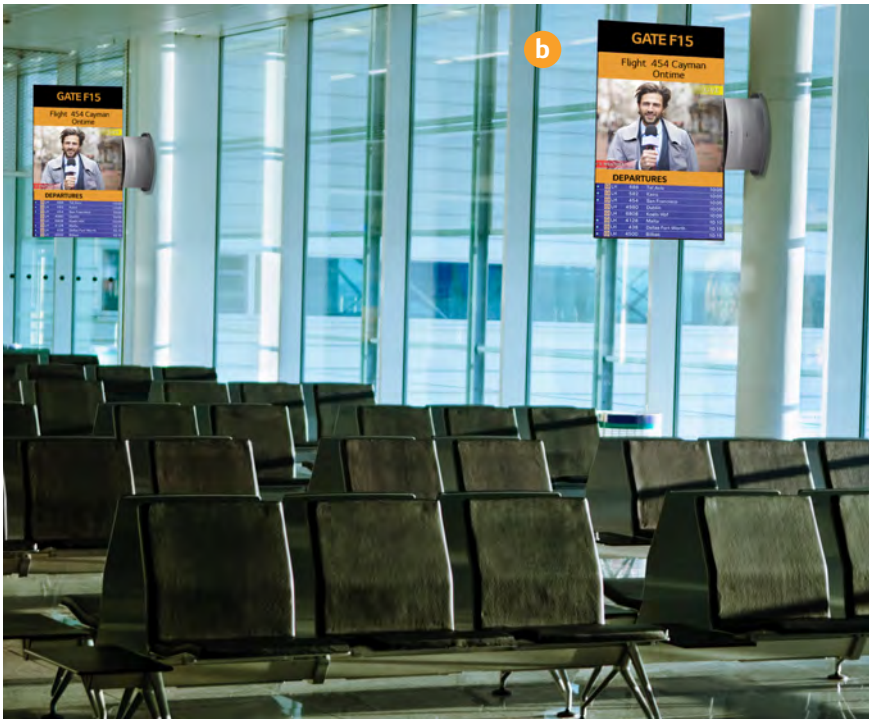
- Place these displays at departure gates to engage travelers while dividing traffic flow
- Use throughout concourses walkways to create a clever way to control pathways

### WALLPAPER OLED DISPLAYS

- Mount behind ticket counters in waiting areas to seamlessly inform passengers with up-to-date schedule and gate change.
- Mount on the wall next to elevators in portrait mode providing local weather and events
- Place in executive lounges to entertain and inform premier members
- Ceiling mount them above check-in counters to entertain customers to lower perceived wait times
- Run them up the outside of an escalator with content like walking through the fields or a bustling city sidewalk

### IN-GLASS WALLPAPER OLED DISPLAYS

- Hang them from the ceiling at terminal entrances to welcome travelers and on the other side wish them happy travels
- Ceiling mount them down the duty-free corridor to advertise vendors and the nuances of duty-free wares



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Floorstanding, Ceiling Mount, Wall Mount

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In-Glass Wallpaper OLED Display





## PUBLIC VENUES

Public venues cover a wide variety of spaces such as museums, convention centers, sports arenas, amusement parks, and concert halls. LG's OLEDs are so versatile and adapt to unique placement and design opportunities never thought of before. They can entertain, inform, and drive traffic around a venue easily. They operate as beautifully as they look, with easy integration and remote management that makes it simple to keep things fresh from wherever your systems are managed. A true way to entice patrons into any environment.

### OPEN-FRAME CURVED OLED DISPLAYS

- Entertain visitors by decorating columns as they make their way to their seats
- Engage patrons in a large-scale when covering the ceiling over escalators
- Cover the entire ceiling for a big WOW factor
- Tile in a 360° circle and place center stage for the most spectacular scoreboard ever seen
- Create vivid free-form backdrops behind entertainers with content that is synced with their show

### LG DUAL-VIEW FLAT OLED DISPLAYS

- Grab attention by mounting from the ceiling or place over hallways and concourses letting people know daily event schedules
- Hang from the sides of columns throughout the space to inform and entertain patrons while they are waiting for the event to begin
- Mount on the wall to promote gift shops and different eateries

### DUAL-VIEW CURVED TILING OLED DISPLAYS

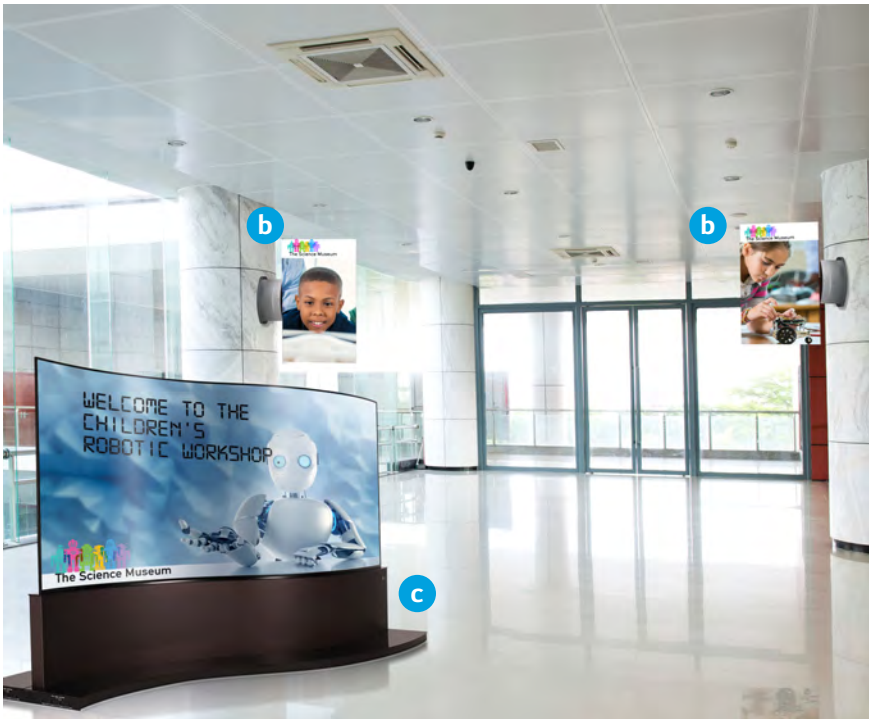
- Place in common areas to advertise workshops and other calendar events
- During intermissions, place in lobbies to entertain the audience as they wait

### WALLPAPER OLED DISPLAYS

- Place in portrait mode and show movie trailers replacing static posters
- Place on the floor below 3D character cutouts playing content placing them in their scene

### IN-GLASS WALLPAPER OLED DISPLAYS

- Hang from the ceiling playing different upcoming events on each side
- Ceiling mount and use as aisle signage to inform audiences what they can expect when they enter the arena
- Combine floor standing and ceiling mounted displays together to form a visually stunning dimensional wall



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Open-Frame Curved OLED Displays

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## HOSPITALITY

Hospitality has always been a guest-centric focused business that specializes in memorable experiences. LG's OLEDs will revolutionize the hotel guest experience from check-in to check-out through beautiful, intuitive designs. From the lobby, fitness center, meeting spaces, and collaborative common spaces, LG OLED displays operate as beautifully as they look. Easy integration and remote management that makes it simple to keep things fresh from wherever your systems are managed.

### OPEN-FRAME CURVED OLED DISPLAYS

- These displays create a big impact when placed in unique forms in lobbies
- Arch from walls and inform visitors of conference event schedules
- Design a unique shaped backdrop behind the check-in desks to show content that is relaxing and engaging while travelers wait for their rooms
- Wrap empty walls with live video feed from outside the property for guest to get excited to take advantage of the properties activities

### LG DUAL-VIEW FLAT OLED DISPLAYS

- Engage guests in the fitness center by mounting from the ceiling playing a work out for people on the treadmill and on the other side play the correct way to lift weight
- Mount from the wall and display local events on one side and ground transportation on the other for total interaction.
- Hang near concierge desks showing videos of local attractions

### DUAL-VIEW CURVED TILING OLED DISPLAYS

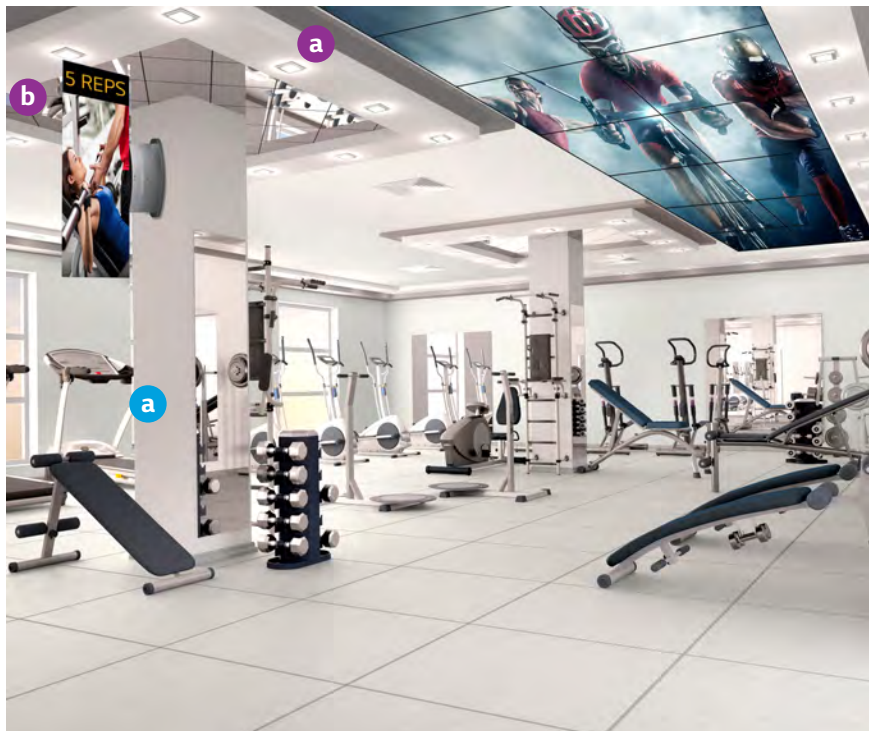
- Position in event spaces showing videos of the parties as they are happening
- Place at the entrances to welcome and thank guests coming and going

### WALLPAPER OLED DISPLAYS

- Use as a digital concierge displaying up-to-date event schedules, local activities and more
- Mount on the wall or ceilings inside elevators with enticing restaurant menus
- Play informational videos on guest services placing them at elevator vestibules

### IN-GLASS WALLPAPER OLED DISPLAYS

- Use as an easy-to-update scheduling system when they hang down the ceiling of event space hallways
- Use as exciting menu boards outside of restaurants
- Hang down retail hallways to engage guests on vendors' wares



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In-Glass Wallpaper OLED Display





## CORPORATE

Corporate buildings are being designed and updated with technology in mind. LG OLEDs will give the lobby, elevators, and other common areas a positive first impression to visitors. Adding LG OLED displays on sales floors, breakrooms, and conference rooms will inspire and inform your employees and educate visitors.. They are simple to install with seamless integration, and their remote management will keep things fresh from wherever your systems are managed.

### OPEN-FRAME CURVED OLED DISPLAYS

- Create a bold branding statement by designing an attractive, forward thinking atmosphere in the lobby
- Keep employees apprised with larger-than-life training sessions in auditorium spaces
- Inform customers of your full line of products and services by wrapping them around columns throughout the lobby
- Relax customers by playing soothing content before their upcoming meeting

### LG DUAL-VIEW FLAT OLED DISPLAYS

- Call attention to lobby service centers by suspending from the ceiling talking about the building's residences and its architecture
- Use as directional signage throughout common spaces
- Immerse visitors by hanging several evenly spaced down a long corridor

### DUAL-VIEW CURVED TILING OLED DISPLAYS

- Customers will take notice of these displays unique shapes when placed by escalator and stairways
- Place in common areas for visitors to view while waiting, reinforcing products on one side and services on the other

### WALLPAPER OLED DISPLAYS

- Build employee loyalty by placing in breakrooms recognizing employee achievements and other personalized messaging such as birthdays and anniversaries
- As customers enter the conference area show customized messaging to reinforcing their importance
- Locate up and down hallways reminding employees of "up-training", sessions, seminar enrollments and seasonal health advice

### IN-GLASS WALLPAPER OLED DISPLAYS

- Meet customers with a personalized video message from the CEO as they enter the building
- Hang from the ceiling in employee breakrooms with different messaging on each side such as company announcements and productivity metrics
- Call out new acquisitions and other major company wide changes
- Use with a company social media Apps to show off products and services



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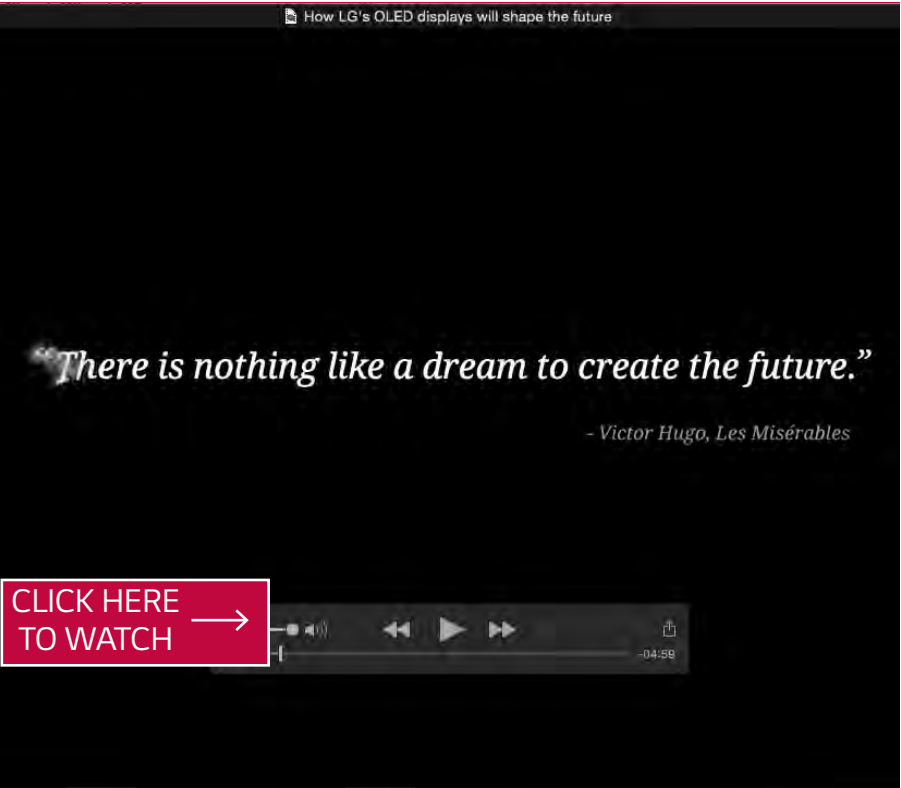
**e** 55EG5CD 55" class  
In-Glass Wallpaper OLED Display





“There’s nothing like a dream to create the future.” *Victor Hugo, Les Misérables*

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<sup>1</sup> Videos courtesy of YouTube®.

**All images on screen are simulated.** Design, specifications, and features subject to change without notice.

This promotion is subject to change without notice. LG has the right to terminate this promotion at any time.

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# EXHIBIT B

## DIGITAL SIGNAGE BEST PRACTICES: NAVIGATING A CHANGING WORLD

The Digital Signage Best Practices Guide is, each year, the industry meeting place where top experts in digital signage and DOOH to provide a roadmap for the changing landscape. In one sense, what we traditionally called digital signage is now so ubiquitous that it's often addressed and covered as part of the larger AV, DOOH (Digital Out of Home), advertising, or broadcast markets. Today, digital signage hardly needs the chamber of commerce pitch of years past, that "digital signage is the wave of the future." We're there, now. But is it all blue skies ahead? What is changing, that we need to be on top of? Is too much success, and the complacency that can lead to, a threat?

It's not a time of complacency, this market. Even in the midst of the boom, display technology is evolving rapidly. For LCD based displays, videowalls are continuing to grow—both in the size of displays and in the size of the market. Interactive displays are everywhere, and 4K continues to displace lower resolution displays at the high end. And direct view LED in finer pixel pitch is now more competitive with alternative displays, and is on the rise in a big way. (And in a world with an explosion of direct view LED displays, we should all ask: "great displays—but how do you feed content to all those pixels?" We do, in this Best Practices Guide.)

Even as digital signage booms, the AV industry is undergoing significant change—toward more AV over IP. With only a few AV/IP products shown at InfoComm 2010, we've moved to thousands of AV/IP products today. Is digital signage prone to the same kind of disruption that AV/IP developments have engendered in the larger installed AV market?

Digital for the Retail space market is as important as ever—it's the holy grail of digital signage and DOOH because of its huge market potential. Retail is now undergoing trial by fire in the face of the growing online shopping trend. But the Amazon effect should not be feared. Rather we can learn from it, as guru Laura Davis Taylor points out in these pages, with an analysis of how smart retailers and agencies are reinvigorating retail.

## BEST PRACTICES: ROUNDTABLE OF EXPERTS



**Laura Davis-Taylor** is principal and Co-Founder of HighStreet, a Retail Experience Collective.



**Alan Brawn** is Principal of Brawn Consulting LLC, an audio visual and IT consulting, educational development, and market intelligence firm.



**David Keene** is Executive Editor at NewBay Media, publisher of Digital Signage Magazine. He is the Chairman of the Judges Committee of the DIGI Awards (Digital Signage Innovation Awards).



**Richard Ventura** is Vice President of Business Development and Solutions for NEC Display Solutions.



**Shaun Roos** is Sales Engineer for the PDS team at Premier Mounts, focusing on the large-format video wall, LED, and custom applications.



**Jeff Greenberg** is an AV and Digital Signage industry consultant, serial entrepreneur, professor and author.



**Sam Recine** is Sales Director for Americas and Asia Pacific, at Matrox Graphics Inc.



**Ed King** is principal Co-Founder of HighStreet, a Retail Experience Collective.



**Garry Wicka** is Head of Marketing, Commercial Displays Division of LG Electronics USA, Inc.

## DIGITAL SIGNAGE BEST PRACTICES GUIDE

avnetwork.com

### CONTENT

Content Director David Keene,

[jdavidkeene@gmail.com](mailto:jdavidkeene@gmail.com)

Senior Art Director Nicole Cobban

Production Manager Heather Tatrow

### ADVERTISING SALES

VP/Market Expert, AV/Consumer

Electronics, Education & Pro Audio

Adam Goldstein,

[agoldstein@nbmedia.com](mailto:agoldstein@nbmedia.com), 212-378-0465

VP/Market Expert, TV/Video/Radio

Eric Trabb, [etrabb@nbmedia.com](mailto:etrabb@nbmedia.com), 212-378-0400 x532

VP/Market Expert, Broadcasting,

Cable & Broadband TV

Charlie Weiss, [cweiss@nbmedia.com](mailto:cweiss@nbmedia.com), 212-378-0478

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call 888-266-5828,

or write P.O. Box 8518, Lowell, MA 01853.

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VP/NewBay Plus Joe Braue

Managing Director/Europe Mark Burton

VP/Audience Development Meg Estevez

VP/Content Creation Anthony Savona

VP/Information Technology Anthony Verbanac

Contact: [engage@nbmedia.com](mailto:engage@nbmedia.com)

28 East 28th Street, 12th Floor, New York, NY 10016

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## NEW GENERATION DISPLAY AND HARDWARE SOLUTIONS

# REIMAGINING WHAT'S POSSIBLE WITH DIGITAL DISPLAYS

Creating a New Content Palette—with Game-Changing OLED Technology



By Garry Wicka, LG Electronics USA

Since its inception, the digital signage industry has largely been a case of function following form. The form (i.e., the LCD flat panel display) came first in what began as an alternative to video projectors; then it was pushed out everywhere in an attempt to satisfy all needs.

Today, businesses are looking for ways to create better customer experiences and stand out from the competition. One of the strategies is recreating their spaces to provide greater visual stimulation and new ways to engage customers. On our end, we are seeing an increasing demand for commercial display solutions that go beyond the "me too" look of traditional LCD flat panels and create a new paradigm where function leads the way.

"Form follows function" is a phrase known to most architects and industrial designers. The idea is that the shape of a building, tool or device should be based upon its intended function or purpose. This concept has brought untold numbers of innovations in architecture, industrial design, and consumer product design. We see it in the shift away from ornate building facades to sleek, practical ones; in streamlined, lighter weight and more fuel-efficient cars; and in the design of smartphones, which are essentially computers that can fit into our palms and pockets. When function comes first, form follows function.

The exciting news is that the digital signage industry is transforming in like manner, with new technologies that make it possible for form to follow function. We're seeing it right now in the revolutionary technology known as Organic Light Emitting Diode (OLED), which is redefining the digital signage landscape and the kinds of customer experiences businesses can offer. What plasma did to the CRT years ago, OLED has the ability to do in the marketplace today.

OLED uses self-lighting pixels, thereby eliminating the need for a built-in back-lighting unit or edge-lighting array as

found in LCDs. The OLED screen is constructed using only a polarizer layer, a TFT+OLED+refiner layer and an encapsulation layer – less than half of the layers required for an LCD panel. The OLED pixels are so tiny and the layers are so few that the depth of the screen can be very shallow, which has many advantages. Less depth means less weight, which translates into easier and less costly mounting and installation. What's more, OLED is flexible. This means that users can be much more creative about where and how they place the screens.

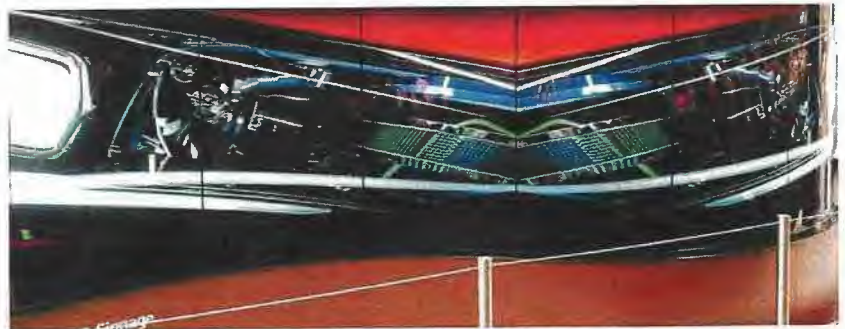
OLED screens can seamlessly blend into an environment, enhance the environment or transform the environment. They can be suspended from the ceiling, conformed to walls, mounted off the wall or placed freestanding on a floor. The form and image quality of this new OLED screen technology provides the freedom to make the solution fit the need, not the other way around.

Overall, OLED is unparalleled in terms of off-axis viewing, black level reproduction, color saturation and contrast, as well as design capabilities. These attributes are the ABCDs of OLED. And because of them, OLED technology can elevate a brand's image, attract and engage people like never before, and create better customer experiences.

Let's have a look at the ABCDs of OLED.

## ANGLE

OLED technology enables ultra-wide horizontal and vertical



Curved LG OLED displays configured into a long, sweeping, curved display wall. Each 65-inch portrait display (there are seven visible in the video wall above) has a depth under 9 mm and a unique dual-sided view to offer users two-sided media. Each screen is 4K Ultra HD resolution (3840 x 2160).



viewing angles of up to 178 degrees, where the content is easily viewable without brightness or color degradation. With this type of off-axis viewing, the OLED content can still attract a customer's eye and influence a decision, thereby maximizing the value of the display investment. When you consider the amazing potential for OLED display installations, horizontal and vertical viewing angles really matter.

#### BLACK

OLED can render perfect black. Each of the self-lighting pixels can turn itself on, brighten, dim and turn off completely to reproduce the deepest black levels in an image. When the OLED pixels turn off, there is no light bleed that could turn that deep black into more of a deep gray. Perfect black also gives OLED the ability to reproduce the details that appear in the shadows just above black, because it can turn the pixels fractionally on.

To illustrate the importance of perfect black, consider why jewelers display their diamonds on black velvet and light them brightly from above. There is no reflection of light from the velvet, so the diamonds sparkle in all their glory. With OLED technology, if only one pixel was lit on a completely black screen, that pixel would still be seen clearly because there would be no light bleed from the pixel itself to affect the surrounding black pixels and distort the image. It's that precise.

#### COLOR AND CONTRAST

OLED offers a wider color gamut than LCD. The self-lighting pixels bring colors to life with superb accuracy and intensity because the pixels themselves create the color, and there is no light bleed to wash it out.

Also, because OLED can render perfect black, the contrast is infinite. To illustrate we can use the diamonds again. Let's say a premium retailer needs to display fine jewelry content. With OLED, customers would see the intricate facets of a diamond in brilliantly crisp definition.

OLED has achieved a display quality that has never been seen until now. Businesses that care about their video quality, graphics quality and color accuracy will care very much about OLED performance.

That's a lot of talk about function, but what about form? OLED can take on virtually any form, and that creates limitless possibilities for design.

#### DESIGN

OLED technology is incredibly thin and lightweight. It can also be curved and formed into concave or convex shapes, allowing it to follow a contoured wall, wrap around pillars and be built into immersive tunnel-like environments. It requires very little physical support and can be mounted facing downward from a ceiling. OLED can even be placed underneath a clear floor. Applications like these are drawing lots of attention from architects, designers and business owners looking to do things that were previously impossible.

To illustrate OLED's versatility, here are a few of the LG OLED digital signage configurations available now.

A 55-inch wallpaper display that weighs less than 13 pounds



The Salesforce San Francisco office has a custom-built LG OLED screen in their lobby that is 12K resolution, with over 7 million pixels, and measures close to 107 feet long. The content ranges from amazing waterfall visuals to California's Redwood National Park and is synced with the local weather to play content that matches the weather.

and has a depth of just 3.65 mm. It offers full HD resolution and ultra-fast motion-picture response time, 64GB of internal memory, content scheduling and WiFi connectivity via a WiFi USB dongle. The display can be mounted either vertically or horizontally using ultra-slim mounting brackets with a magnetic mat to create a seamless design that becomes one with the wall. To house the electronic components we use a separate control box connected to the display with a ribbon cable.

In another application, two wallpaper displays are placed back to back and framed by glass, creating a dual-sided viewing experience. The display can be suspended from a ceiling or placed on a dedicated floor stand, giving the illusion of dynamic images floating in air.

Other dual-sided versions include a dual-view flat display and dual-view curved tiling display. The 55-inch flat display offers a two-sided media experience in full HD, is less than 8 mm deep, and has the ability to swap and mirror content on either side with the press of a remote control button. The curved tiling display uses 9 mm thick 65-inch 4K UHD tiles to form customizable displays that link combinations of two to eight tiles together and provide high-performance SoC and 128GB of internal memory.

Ask yourself: In a perfect world, what would your display screens be able to do? Then what would your business look like? If the picture quality representing your products, logos, branding elements and other content is important enough to demand only the best; and if the thought of creating incredible experiences for your customers inspires big dreams, then reimagine what's possible with digital displays. OLED can do things no other technology has ever done. It can put your vision on full display, and attract and hold people's attention like never before. When display form follows function, your customers can become very involved in and inspired by your message. And that can help elevate your bottom line.

*Garry Wicka is Head of Marketing, Commercial Displays Division of LG Electronics USA, Inc., where he is responsible for brand positioning including customer experience, brand profile, input to next-generation product engineering and support of the LG direct sales force and partners in end-user satisfaction.*

# EXHIBIT C





# Creating a New Content Palette—with Game-Changing LG OLED Technology

Presented by:

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We're entering a new era for AV and digital displays—with totally new communication, imaging, branding, and experiential possibilities for corporate and educational campuses, museums, retail environments, and transportation hubs. Advanced end users and AV integrators now have access to new, game-changing tools that offer stunning imagery combined with new form factors.

## INTRODUCTION

As the display and content revolution powers on, driven by fast-paced advances in display technology and user demand, the need for new solutions, platforms, and business models is evolving quickly. The most advanced AV integrators, and the most demanding users, are thinking outside the box—literally—and crafting not just display solutions but immersive experiences. LG OLED is at the heart of this thinking, providing tools to take these installations way beyond anything of which digital displays or conventional “flat panels” are capable. LG OLED displays are creating new ways to engage with museum and entertainment venue attendees, retail customers, commuters at transportation hubs, and corporate employees. And they are establishing new performance benchmarks for video and graphics—for high resolution, high contrast, expanded color gamut, and flexible form factors. This white paper will show how.

## THE LG OLED REVOLUTION

LG OLED technology<sup>1</sup> has taken not just the display world, but also the branding and content worlds, by storm. LG OLED's remarkable image improvements and much thinner form factor enable AV integrators and their customers to take stunning displays into applications that were not served by traditional flat panels and digital signage displays. LG OLED allows for many form factor options—dual-sided, curved, in-glass, or razor-thin wallpaper displays—that can

be integrated directly into entertainment, museum, retail, enterprise, and other environments to create a more compelling and dynamic experience for visitors, customers, or employees.

Why LG OLED? And how does it bring totally new tools and business opportunities for installed AV and technology-enriched architectural design and innovation at the highest levels?

According to Michael Treacy, Whitlock regional account manager for AV design,

1. The name OLED, “organic light-emitting diode,” is the key to understanding the technology. “Organic” refers to the carbon film layer inside the panel that produces the images the eye sees. Unlike LCD panels that need a backlight—a fluorescent bulb or LED backlight to shine through the LCD panel—OLED pixels emit their own light to produce the image. The result—with the pixels directly producing (“emitting”) both color and light intensity—is better color, better contrast ratio, better handling of motion and flicker, and better viewing.



install, and unified communications, LG OLED provides Whitlock, one of the top AV integrators in the US, totally new business opportunities. Whitlock is already spec'ing and building LG OLED displays into some high-level installations. Why?

"OLED from LG is just such a refreshing new display solution, for us and for our customers," says Treacy. "It's very futuristic in look and feel. It's thin, and that's nice in terms of visual appeal, and it also makes it easier to install. From an integration standpoint, it opens up new opportunities because it's easy to install anywhere, but it's also easy to install in different kinds of spaces, unusual places. And anyone who's seen it—including our customers—can see the stunning color saturation, the eye-popping color, and the deep blacks."

Jeff Porter, a top commercial AV consultant, echoes the comments coming from the advanced display communities in broadcast TV and Hollywood.

"With OLED, there is no backlight," says Porter. "The pixels are the light source, because it's a high-resolution, emissive technology, so the result is a deeper black capability, and better color saturation because LCD crystals are not filtering the light source and weakening color and polluting deep blacks."

"LG OLED is a game-changing technology," says Matt Waidley, national distribution manager at LG. "Our booths at the major AV trade shows this year have been deep with AV integrators and end users. For them, this is a new technology generation. It opens up new palettes, new frames. LG OLED can be bent, for example. The new opportunities are about putting new screens, and better screens, in places where they could not be put before."

The experts are seeing LG OLED enter the market in a big way. What's being done in the field today that offers a look into the possibilities that LG OLED technology offers? Imagine a huge display palette built into a ceiling, high above an open public space in an international airport. Imagine a large video wall that is curved—traditional flat panels were never amenable to a curved configuration, but LG OLED can be curved. (LG OLED can even be curved on-site, live, in the installation.)

Imagine creating large tunnels made entirely of stunning digital displays. LG OLED takes you and your customers beyond "AV"—it takes you into new design and architectural dimensions that mean more and better business opportunities.

Curved LG OLED displays configured into a long, sweeping, curved display wall. Each 65-inch portrait display (there are seven visible in the video wall above) has a depth under 9 mm and a unique dual-sided view to offer users two-sided media. Each screen is 4K Ultra HD resolution (3840 x 2160).





## Why LG OLED?

The game-changing performance that no other displays can match:

- Perfect black: Each pixel can switch off completely to reproduce absolute black with no light bleed.
- Stunning color and contrast: Self-lighting pixels bring color to life with superb accuracy and infinite contrast.
- Off-axis performance: Awe-inspiring picture quality across the entire screen, even from wide viewing angles.
- Razor-thin design: With just two layers, LG OLED signage displays are unbelievably lightweight and razor thin. And having only two layers is what allows dual-view (i.e., dual-sided) LG OLED displays to be super thin as well..

LG Open-Frame OLED displays are able to flex to a concave or convex curve for a truly customizable approach that creates both a work of art and a functional display. Click on image to see the movie clip.

Here's an example of how a top AV integrator recently used LG OLED to craft a unique solution—a solution that's refreshing and different as well as modest in scope—with their client. Whitlock, by any standard one of the top AV integrators in the country, worked with the Smeal College of Business at Penn State University. Whitlock's Mike Treacy describes the challenge, and the solution:

"At the Penn State business school, they have high ceilings in the lobby area," Treacy explains. "They wanted to be able to position some very classy but impressive screens in the area, for VIP greetings, for special events, and more. But they didn't want something nailed down—they wanted to be able to move the screens around as needed. While that scenario might have a customer or AV integrator scaling back a design to rolling flat panels—with not much appeal or wow factor for anyone—OLED brought a totally new kind of solution. We did a presentation of OLED from LG to the university. But we did the presentation to both their tech staff and their business/marketing staff. Why the business

staff also? Because it's clear that the management/marketing folks at top business schools—like corporations—now want to find ways to stand out from the crowd, to promote their 'brand awareness' whenever and wherever they can."

As a result of the LG OLED presentation to the Penn State business school, dual-sided LG OLED displays were selected for the application.

"LG has a dual-sided, extremely thin configuration that lets you position the displays not like more rectangles on a wall, but as hanging or protruding 'flags,' so to speak. It allows you to place the branding, or messaging, anywhere—not just on a wall. And the double-sided display lets visitors view the screens 'coming and going.' For the lobby of the Smeal College of Business it works perfectly—not only are the OLED displays themselves stunning, bright, and high contrast (even in the high ambient light in the lobby), but all the displays are on tall, moveable kiosks that can be easily moved for any event. OLED was the perfect solution for the application," Treacy says.



The Salesforce San Francisco office has a custom-built LG OLED screen in their lobby that is 12K resolution, with over 7 million pixels, and measures close to 107 feet long. The content ranges from amazing waterfall visuals to California's Redwood National Park and is synced with the local weather to play content that matches the weather.



Dan Smith, senior director of sales at LG, says that the company's customers are discovering not just the image quality, but also the form factor possibilities of LG OLED, in new and surprising ways.

"When you have the form factor options that LG OLED provides, it's amazing what you can do," says Smith. "Wallpaper (i.e., extremely thin), in-glass, curves, ceilings, waves, waves on a ceiling. Once you have that form factor flexibility, all of that is possible. We are taking the same LG OLED panel, but its thinness and flexibility are allowing the configuration options."

Smith reports that LG is seeing huge demand now from retailers, who are competing to win mindshare of the consumer in store. "They don't want to put a black screen in the store, to disrupt it—they want a more elegant look. And beyond the retail market, in sports arenas—is there a big LED ring—or 'band'—encircling the entire seats/stands area in the stadium? That can be emulated in the bar areas, with LG OLED (a major new professional sports stadium is doing that today with LG OLED). Ceilings, floors, and tunnels—only LG OLED can do the curves on that large

scale. In the corporate space? You can wrap architecture in lobbies with flexible LG OLED."

## CONCLUSION

The most advanced AV integrators, and the most demanding users, are spec'ing in LG OLED displays that take their installations way beyond the capabilities of digital displays or conventional "flat panels. As the AV market and branding and experiential content creators seek new solutions for new tech and business challenges, LG OLED displays have broken away from all previous form factor limitations, creating totally new palettes for digital display and more engaging content. These new LG OLED displays are opening up new ways to engage with museum and entertainment venue attendees, retail customers, commuters at transportation hubs, and corporate employees and stakeholders. And they're establishing new performance benchmarks for high resolution, high contrast, expanded color gamut, and flexible form factors for video and graphics—benchmarks that are now defining a new norm, not the exception. ■

## LG'S MARKET LEADERSHIP IN OLED

LG Electronics USA is at the forefront of display applications and technologies that address all the needs of the commercial AV and digital signage markets. LG is the only manufacturer to offer OLED displays for the commercial AV and digital signage markets, with full commercial warranties and the global service and support for which LG is known.

LG's new lineup of OLED displays is causing integrators and end users to rethink what they should expect when it comes to image quality, mounting flexibility, and sheer architectural adaptability.

LG OLED comes in two styles: either in a frame or in Open-Frame products that are literally flexible. A few of the most popular LG OLED configurations for the commercial AV market are:

**The LG OLED Wallpaper** commercial display is a 55-inch display that weighs less than 13 pounds and has a depth of just 3.65 mm. It really does hug, or float on, the wall—it doesn't jut out from a wall like most digital displays. From a distance, it looks as if the display is painted on the wall—it's that thin. It can be mounted either vertically or horizontally. The electronic components are housed in a separate control box connected to the display with a two-meter (6.5-foot) ribbon cable. The LG OLED Wallpaper commercial display features Full HD resolution (1920 x 1080), 64GB of internal memory, and content scheduling and Wi-Fi connectivity with the use of a Wi-Fi USB dongle for ease of installation and end user operation.



### LG's In-Glass Wallpaper

version (shown in the picture at left) is designed with dual-sided, ultra-slim LG OLED panels surrounded by glass panes. The In-Glass Wallpaper LG OLED is available in standing and hanging versions to provide users flexible options.

**The Dual-View Flat LG OLED** display also offers a space-efficient, dual-sided view to provide customers two-sided displays in Full HD (1920 x 1080). With an even slimmer depth, measuring under 8 mm (less than one-third of an inch), and three different installation options, this 55-inch flat LG OLED commercial display allows, according to LG, "retailers to plan a more efficient layout while utilizing a high-end display solution. Additionally, the display has the unique ability to swap and mirror content on either side of the screen with a simple press of a remote-control button."

**Dual-View Curved Tiling LG OLED** displays offer a curved design using slim tiles to form customizable displays that link combinations of two to eight tiles together. The 65-inch portrait display has a depth under 9 mm (about one-third of an inch), and a unique dual-sided view to offer users two-sided media. Each screen is 4K Ultra HD resolution (3840 x 2160). If desired, the system-on-a-chip (SoC) and a 128GB internal memory capacity enable UHD-synced playback without the need for PCs or media players.



LG OLED displays can be configured into stunning video walls. Click on image to see the movie clip of an LG OLED video wall made of portrait mode displays.

### CUSTOMIZABLE SOLUTIONS

LG can custom-create beautiful, designed-to-function OLED displays, working with you to develop a solution that transforms an environment and the way people interact with it.

For full descriptions of the complete line of LG OLED display offerings, [click here](#).

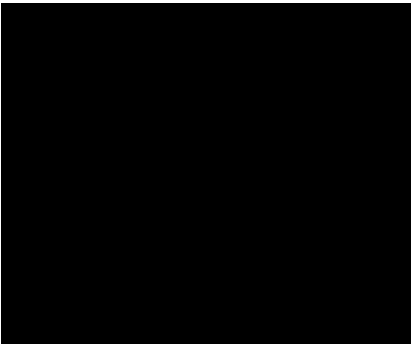

To view our lookbook, [click here](#).

# EXHIBIT D

## EXHIBIT A - CONFIDENTIAL

First Name Last Name	Email	Company	Job Title	Country	City	State	Zip
		Isothermal Communtiy College		USA	Spindale	NC	28160
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		INTELLIGENT MEDIA SERVICES		United States	Salt Lake City	Utah	84121-6110
		P2S Engineering, Inc.		United States	Long Beach	California	90815
		Shen Milsom & Wilke LLC		United States	New York	New York	10016
		Invision Architecture		United States	Waterloo	Iowa	50704
		University of MD School of Nursing		United States	Baltimore	MD	21201
		Bull and Josie's		United States	Uxbridge	MA	01569-1127
		WKU		USA	Bowling Green	KY	42101
		HCPS		USA	Bel Air	MD	21014
		fiserv		usa	lake mary	fl	32746
		MHCC		USA	Gresham	OR	97030
		Southwest Minnesota State Univer		USA	Marshall	MN	56258
		General Society of Mechanics and		USA	New York	NY	10036
		HA Design Group		United States	Springfield	Virginia	22150
		Chaffey College		United States of American	San Bernardino	CA	92405
		CAPERES UNLtd., L.L.C.		USA	CHICAGO	IL	60637
		Hallmark HealthSystem		USA	Melrose	MA	2176
		DDSAV		USA	SAN ANTONIO	TX	78247
		University of South Carolina		USA	Columbia	SC	29208
		fred brink's company		usa	marblehead	ma	1945
		Univeristy of Illinois, Center for Inn		USA	CHAMPAIGN	IL	61820
		U of M Ross School of Business		United States	Ann Arbor	MI	48109
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		L3 Technologies, Link Simulation &		USA			
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		KMH AV Integration INC.		USA	SPRINGFIELD GARDENS	NY	11413
		Daiichi Sankyo		USA	Basking Ridge	New Jersey	7920
		Volutone		United States	simi valley	ca	93065
		Duan Molette Entertainment Grp		United States	ATLANTA	GA	30307
		University of Texas		usa			
		Sardis Solutiuons		United States			
		Syntropique		United States	TACOMA	WA	98406
		los angeles opera		usa		ca	
		Home Entertainment by DTronics		United States	Mcallen	TX	78573
		Media Voyage		US	Jacksonville	OR	97530
		K. B. Lee Corp		USA	Honolulu	Hawaii	96815
		Marra Construction, Inc		USA		FL	
		Mr.		United States	San Francisco	CA	94116
		rudloph		usa	wilmington	ma	1887
		AVI-SPL		United States	Metuchen	NJ	8840
		Georgia Automation & Home Thea		U.S.A.		Ga	
		IMEG		USA	Austin	Texas	78746
		Allied Environmental Signage		United States	Farmingdale	NJ	7727
		Imagination Systems		USA		NC	
		ATKDG.com		USA	LAGUNA BEACH	CA	92652
		BCD		USA	Valatie	NY	12184
		Glumac		United States	Portland	Or	97204
		Library of Congress		USA	Culpeper	Virginia	22701
		unigroup		USA	Fenton	MO	63026
		National Technology Associates		usa	Las Vegas	NV	89118
		TakeNote Productions Inc.		USA	Youngstown	Ohio	44515
		Media Now		United States	Bronx	New York	10467
		MID-STATE DISTRIBUTING CO		United States	Omaha	NE	68138
		NRO		USA	Chantilly	Va	20151-1715
		Glumac		United States	Portland	Or	97204
		Evergreen av studios		USA	Boston	Ma	2144
		MediaNow Inc.		USA	Netcong	New Jersey	7874
		IMEG		USA	Austin	Texas	78746
		KPAX		USA	Missoula	MT	59806
		Liquid Church		United States	Parsippany	NJ	7054
		University of Illinois - College of Ve		United States	URBANA	Illinois	61802
				United States	Montpelier	VA	23192
		Syska Hennessy Group		United States	Chicago	IL	60611
		Oneview Controls		United States	Marlborough	MA	1752
		Summit Process Contro,		USA	Midway	UT	84049
		IHMC		us	Pensacola	FL	32503
		Eden Engineering, Inc.		USA	Sunrise	FL	33351
		Vortex Immersion Media, Inc.		USA	Los Angeles	CA	90017
		tk1sc		United States	irvine	California	92618
		electraZing		U.S.A.	nashville	tn	37203
		Attero Tech LLC		United States	Fort Wayne	IN	46808
		Fluor		Usa	Garden grove	Ca	92844
		LA PALOMA THEATRE		USA	ENCINITAS	CA	92024
		Spevco		USA	Pfafftown	NC	27040
		EVT Educational Productions, Inc.		USA	Montclair	NJ	7042
		MantelMount		United States	Carlsbad	CA	92010
		Dabbledoo Sound and Media Grou		United States	Chicago	IL	60619
		picture shop		us	burbank	ca	91505
		Metric Halo		USA	Safety Harbor	FL	33695
		Drummond Community Bank		United States of America	Chiefland	FL	32626
		Quality Manufacturing Inc		USA	Saint Paul	Minnesota	55110
		MGNdirect		United States	Cardiff By The Sea	California	92007
		American Entertainment		usa	Dousman	WI	53118
		Digital Display Solutions		USA	San Antonio	Tx	78216
		Miami University		United States	Oxford	OH	45056

EXHIBIT A - CONFIDENTIAL

	Mod Labz		United States	Rockaway Park	NY	11694
	Noritake Co., Inc.		USA	Fair Lawn	New Jersey	7410
	Interior Environments		United States	Novi	Michigan	48374
	Brisk FX		United States	Lees Summit	Missouri	64081
	AVEC		USA	Finleyville	PA	15332
	BASF		USA	Florham Park	NJ	7932
	main cross connect		United States	rochester	new york	14620
	Trident Military Systems, LLC		UNITED STATES	Mesa	AZ	85212
	MHS Systems		United States	Atlanta	Georgia	30331
	Thinkwell Group		United States	Los Angeles	CA	90065
	eTech		United States	Niagara Falls	NY	14303
	Pro Musix		USA	Detroit	Michigan	48221
	PJR Design, Inc.		United States	CHICAGO	Illinois	60654
	MTPBS		USA	Bozeman	MT	59717
	IMEG Corporation		United States	Naperville	IL	60563
	Texadia Systems LLC		USA	Dallas	TX	75248